

Specification Amendments Filed 10/25/2006 with Response to Office Action mailed by Examiner on 04/25/2006 in Patent Application No. 10/675,350

1) Please replace paragraph 46 in the specification as filed with the paragraph below:

[046] Region **12** is usually formed of a material having a lower refractive index than core **14**. In some embodiments, core **14** has a refractive index (n_{14}) and region **12** has a refractive index (n_{12}) so that $\left[\left((n_{14})^2 + (n_{12})^2\right)^{1/2}\right] \frac{\left((n_{14})^2 - (n_{12})^2\right)^{1/2}}{(n_{14})^2}$ is less than about 0.2 (e.g., less than about 0.17) and greater than about 0.05 (e.g., greater than about 0.12), such as from about 0.12 to about 0.17. Examples of materials from which region **12** can be formed include silica materials, such as fused silica materials. In certain embodiments, the refractive index of region **12** is about the same (e.g., the same) as the refractive index of core **14**.

2) Please replace paragraph 47 in the specification as filed with the paragraph below:

[047] Cladding **16** usually comprises a lower refractive index than core **14**. In some embodiments, core **14** has a refractive index (n_{14}) and cladding **16** has a refractive index (n_{16}) so that $\left[\left((n_{14})^2 + (n_{16})^2\right)^{1/2}\right] \frac{\left((n_{14})^2 - (n_{16})^2\right)^{1/2}}{(n_{14})^2}$ is less than about 0.2 (e.g., less than about 0.17) and greater than about 0.05 (e.g., greater than about 0.12), such as from about 0.12 to about 0.17. Examples of materials from which cladding **16** can be formed include silica materials, such as fused silica materials. In some embodiments, region **12** and cladding **16** are formed of the same material(s). In certain embodiments, region **12** and cladding **16** are formed of different material(s).

3) Please replace paragraph 48 in the specification as filed with the paragraph below:

[048] Cladding **18** usually comprises a lower refractive index than an index of refraction comprised by cladding **16**. In some embodiments, claddings **18** and **16** have refractive indices (n_{18}) and (n_{16}), respectively, so that $\left[\left((n_{18})^2 + (n_{16})^2\right)^{1/2}\right] \frac{\left((n_{16})^2 - (n_{18})^2\right)^{1/2}}{(n_{16})^2}$ is less than about 0.6 (e.g., less than about 0.5) and greater than about 0.3 (e.g., greater than about 0.4), such as from about 0.42 to about 0.47. Examples of materials from which cladding **18** can be formed include polymeric materials, such as, for example, acrylate resins, silicone polymers, polyurethane. Such materials can

be, for example, fluorinated or nonfluorinated. Cladding **16** and **18** can also comprise microstructured-type claddings, and can, for example, comprise voids or air or another gas. Microstructured claddings, as is well known in the art, can comprise photonic bandgap structures or structures that achieve a selected average index of refraction, such as by, for example, incorporating gaps or voids.